

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 20-33, drawn to a phase change memory cell and a memory including a plurality of memory cells.

Group II, claim(s) 34-38, drawn to a method for making at least one phase-change memory cell.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The claims of Group I relate to a phase-change memory cell absent a substrate. The claims of Group II relate to a method of making at least one phase-change memory cell wherein a first electrical contact is formed on a substrate. Common technical feature amongst the groups is known in the art resulting in lack of unity.

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3. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

4. The species listed below do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the reasons given below:

The species are as follows and the claims deemed to correspond to the species listed below are included in parentheses:

- a. FIG. 1a wherein at least one of the passive outmost areas laterally overlaps the active central area and wherein each passive outmost area is made in a material substantially of the same chemical nature but with a different composition from those of the material of the active central area (claims 20-25, 28-30, 32, and 33).
- b. FIG. 1a wherein at least one of the passive outmost areas laterally overlaps the active central area and wherein each passive outmost area is made in a material which is of a chemical nature different from that of the material of the active central area, this material having very low solubility in the material of the active central area (claims 20-23, 26-30, 32, and 33).
- c. FIG. 1b wherein at least one of the passive outmost areas and the active central area coincide laterally and wherein each passive outmost area is made in a material substantially of the same chemical nature but with a different

composition from those of the material of the active central area (claims 20-25, 28, 29, and 31-33).

d. FIG. 1b wherein at least one of the passive outmost areas and the active central area coincide laterally and wherein each passive outmost area is made in a material which is of a chemical nature different from that of the material of the active central area, this material having very low solubility in the material of the active central area (claims 20-23, 26-29, and 31-33).

e. FIG. 4 (claims 34 and 35)

f. FIG. 5 (claims 34-36) presents mutually exclusive steps within steps b.) and c.) of claim 34

g. FIG. 6 (claims 34, 35, and 37) presents mutually exclusive steps within steps b.) and c.) of claim 34

h. FIG. 7 (claims 34, 35, and 38) presents mutually exclusive steps within steps b.) and c.) of claim 34

The following claim(s) are generic: claims 20-23, 28, 29, and 32-35.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include

all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

5. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Roland whose telephone number is 571-270-1271. The examiner can normally be reached on Monday-Friday, 8:00AM-5:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anh D. Mai/
Primary Examiner, Art Unit 2814

/C. M. R./